

1.0 Description of the Service

Sleep studies and polysomnography refer to attended services for the continuous and simultaneous monitoring and recording of various physiological and pathophysiological parameters of sleep for six or more hours. Sleep studies and polysomnography are performed with physician review, interpretation and report. Sleep studies and polysomnography are performed to diagnose a variety of sleep disorders and to evaluate a patient's response to therapies such as nasal continuous positive airway pressure (NCPAP).

1.1 Polysomnography

Polysomnography is the scientific evaluation of sleep that involves a physiologic recording in a specialized facility. Polysomnography is distinguished from sleep studies by the inclusion of sleep staging.

1.2 Sleep Study

A sleep study does not include sleep staging. A sleep study may involve simultaneous recording of ventilation, respiratory effort, EKG or heart rate, and oxygen saturation.

1.2.1 Multiple Sleep Latency Test

- Measures daytime sleepiness.
- The instruction is to try to fall asleep.
- Involves four to five, 20-minute recordings of sleep-wake states spaced at 2-hour intervals throughout the day.

1.2.2 Maintenance of Wakefulness Test

- Measures daytime sleepiness.
- Involves multiple trials throughout a day of low-demand activity when the instructions are to resist sleep.

2.0 Eligible Recipients

2.1 General Provisions

Medicaid recipients may have service restrictions due to their eligibility category that would make them ineligible for this service.

2.2 Special Provisions

Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) is a federal Medicaid requirement that provides recipients under the age of 21 with medically necessary health care to correct or ameliorate a defect, physical or mental illness or a condition identified through a screening examination. While there is no requirement that the service, product or procedure be included in the State Medicaid Plan, it must be listed in the federal law at 42 U.S.C. § 1396d(a). Service limitations on scope, amount or frequency described in this coverage policy do not apply if the product, service or procedure is medically necessary.

The Division of Medical Assistance's policy instructions pertaining to EPSDT are available online at <http://www.dhhs.state.nc.us/dma/prov.htm>.

3.0 When the Service is Covered

3.1 General Criteria

Medicaid covers sleep studies and polysomnography when:

1. the service is medically necessary.
2. the service is individualized, specific, and consistent with symptoms or confirmed diagnosis of the illness or injury under treatment, and not in excess of the recipient's needs.
3. the level of service can be safely furnished, and for which no equally effective and more conservative or less costly treatment is available statewide.
4. the service is furnished in a manner not primarily intended for the convenience of the recipient, the recipient's caretaker or the provider.

3.2 Medical Necessity Criteria

A supervised polysomnography or sleep study performed in a sleep laboratory may be considered medically necessary as a diagnostic test in patients who present with one of the following:

3.2.1 Narcolepsy

Narcolepsy is a syndrome that is characterized by abnormal sleep tendencies (excessive daytime sleepiness, disturbed nocturnal sleep, inappropriate sleep episodes or attacks).

Polysomnography or sleep studies are covered as a diagnostic test for narcolepsy when the condition is severe enough to interfere with the patient's well-being and health.

Ordinarily, a diagnosis of narcolepsy can be confirmed by three sleep naps.

3.2.2 Sleep Apnea

Sleep apnea is a potentially lethal condition where the patient stops breathing during sleep. The three types are central, obstructive and mixed.

Apnea is defined as a cessation of airflow for at least ten seconds. Hypopnea is defined as an abnormal respiratory event lasting at least ten seconds with at least a 30 percent reduction in thoracoabdominal movement or airflow with at least 4 percent oxygen desaturations.

3.2.3 Parasomnia

Parasomnia is a group of conditions that represent undesirable or unpleasant occurrences during sleep. These conditions may include:

- sleepwalking
- sleep terrors
- REM sleep behavior disorders.

Suspected seizure disorders as possible cause of the parasomnia are appropriately evaluated by standard or prolonged sleep EEG studies.

3.2.4 Periodic Limb Movement Disorder (PLMD)

PLMD is an involuntary, repetitive movement disorder during sleep, primarily in the legs that may lead to arousals, sleep disruption, and corresponding daytime sleepiness.

3.2.5 Chronic Insomnia when one of the following conditions are met:

1. diagnosis is uncertain
2. sleep related breathing disorder or periodic limb movement disorder are suspected
3. a patient is refractory to treatment
4. violent behaviors are comorbid
5. circadian dysrhythmias complicate the clinical picture

4.0 When the Service Is Not Covered

4.1 General Criteria

Sleep studies and polysomnography are not covered when:

1. the recipient does not meet the eligibility requirements listed in **Section 2.0**.
2. the recipient does not meet the medical necessity criteria listed in **Section 3.0**.
3. the service duplicates another provider's service.
4. the service is experimental, investigational or part of a clinical trial.
5. the service is an unattended home study.

4.2 Medical Necessity Criteria

Sleep studies and polysomnography are not considered medically necessary for the following indications:

- Impotence
- Chronic insomnia, except when an underlying physiology exists such as those listed under **Section 3.2**.
- Snoring and nasal obstructive signs and symptoms are not, in and of themselves, indications for the study, but they may be indications of sleep apnea when other findings are also present.

5.0 Requirements for and Limitations on Coverage

Previous testing performed by the attending physician, to the extent the results are still pertinent, should not be duplicated.

5.1 General Requirements

Sleep studies and polysomnography must include recording, interpretation, and reporting.

5.2 Polysomnography Requirements

For a study to be reported as polysomnography, sleep must be recorded and staged. Sleep staging includes but is not limited to:

1. 1 to 4 lead electroencephalogram (EEG)
2. Electro-oculogram (EOG)
3. Submental electromyogram (EMG)
4. Electrocardiogram (EKG)
5. Airflow, ventilation and respiratory effort
6. Oximetry and/or CO2 measurements
7. Extremity muscle activity
8. Extended EEG monitoring
9. Gastroesophageal reflux
10. Continuous blood pressure monitoring
11. Snoring
12. Body positions

6.0 Providers Eligible to Bill for the Service

Providers who meet Medicaid's qualifications for participation and are currently enrolled with the N.C. Medicaid program are eligible to bill for sleep studies and polysomnography when the service is within the scope of their practice.

7.0 Additional Requirements

There are no additional requirements.

8.0 Policy Implementation/Revision Information

Original Effective Date: January 1, 1991

Revision Information:

Date	Section Updated	Change

Attachment A: Claims Related Information

Reimbursement requires compliance with all Medicaid guidelines including obtaining appropriate referrals for recipients enrolled in Medicaid Managed Care programs.

A. Claim Type

- **CMS-1500 Claim Form**
Physicians bill services on the CMS-1500 claim form.
- **UB-92 Claim Form**
Hospital providers bill services on the UB-92 claim form.

B. Diagnosis Codes that Support Medical Necessity

Providers must bill the ICD-9-CM diagnosis that most accurately describes the reason for the encounter. Diagnostic codes must be billed at their highest level of specificity.

ICD-9 Diagnosis Code	Description
278.01	Morbid Obesity
278.8	Other hyperalimentation
307.47	Other dysfunctions of sleep states or arousal from sleep
307.48	Repetitive intrusions of sleep
345.80	Other forms of epilepsy without mention of intractable epilepsy
345.81	Other forms of epilepsy with intractable epilepsy
347.00	Narcolepsy without cataplexy
347.01	Narcolepsy with cataplexy
347.10	Narcolepsy in conditions classified elsewhere without cataplexy
347.11	Narcolepsy in conditions classified elsewhere with cataplexy
780.09	Alterations of consciousness, other
780.51	Insomnia with sleep apnea
780.53	Hypersomnia with sleep apnea
780.54	Other hypersomnia
780.55	Disruptions of 24-hour sleep-wake cycle
780.56	Dysfunctions associated with sleep stages or arousal from sleep
780.57	Other and unspecified sleep apnea
780.58	Sleep related movement disorder
780.59	Other sleep disturbances
799.0	Asphyxia

C. Procedure Codes

CPT Code	Description
95805	Multiple sleep latency or maintenance of wakefulness testing, recording, analysis and interpretation of physiological measurements of sleep during multiple trials to assess sleepiness
95807	Sleep study, simultaneous recording of ventilation, respiratory effort, ECG or heart rate, and oxygen saturation attended by a technologist
95808	Polysomnography; sleep staging with 1-3 additional parameters of sleep, attended by a technologist
95810	Polysomnography; sleep staging with 4 or more additional parameters of sleep, attended by a technologist
95811	Polysomnography; sleep staging with 4 or more additional parameters of sleep, with initiation of continuous positive airway pressure therapy or bilevel ventilation, attended by a technologist

D. Place of Service Codes

Allowable places of service for polysomnography and sleep studies are inpatient hospital, outpatient hospital, and physician's office.

E. Modifiers

Providers are required to follow applicable modifier guidelines.

F. Reimbursement Rate

Providers must bill their usual and customary charges. The reimbursement rate schedule is available on DMA's website at <http://www.dhhs.state.nc.us/dma/fee/fee.htm>.

G. Billing Guidelines

1. Polysomnography and sleep studies may be billed as a complete procedure or as professional and technical components.
 - a. Polysomnography and sleep studies are limited to one procedure per date of service by the same or different provider.
 - b. The technical or the professional component cannot be billed by the same or different provider on the same date of service as the complete procedure is billed.
 - c. The complete procedure is viewed as an episode of care that may start on one day and conclude on the next day. When billing for the complete procedure, the date that the procedure began is the date of service that should be billed. The complete procedure should not be billed with two dates of services.
 - d. If components are billed, the technical and the professional components should be billed with the date the service was rendered as the date of service.
2. Medicaid does not allow separate reimbursement for the following procedures on the same date of service by the same or different provider:
 - a. Electrocardiographic monitoring for 24 hours (CPT codes 93224 through 93272) with sleep studies and polysomnography (CPT codes 95805 through 95811).
 - b. Non-invasive ear or pulse oximetry single or multiple determinations (CPT codes 94760 and 94761) with sleep studies and polysomnography (CPT codes 95805 through 95811).
 - c. Circadian respiratory pattern recording (pediatric pneumogram), 12 to 24 hour, continuous recording, infant, (CPT code 94772) with sleep studies (CPT codes 95805 through 95806) (age six and under).

- d. Continuous positive airway pressure ventilation, CPAP, initiation and management, (CPT code 94660) with polysomnography (CPT code 95811).
- e. Electroencephalogram (CPT codes 95812 through 95827) with polysomnography (CPT codes 95808 through 95811).
- f. Facial nerve function studies (CPT code 92516) with polysomnography (CPT codes 95808 through 95811).